ABSTRACT OF THE DISCLOSURE

Method for phase-synchronous supply of an optical pulsed signal or an optical NRZ transmission signal and an electrical data signal, wherein an optical pulsed signal and an electrical data signal which are synchronized with respect to an electrical clock signal are supplied to an electrooptical modulator in order to produce an optical RZ transmission signal. In order to control the phase-synchronous supply, a portion of the optical RZ transmission signal is output, and the output portion is converted to an electrical signal. The power, the current or the voltage of the electrical signal is then determined in a narrow frequency band around the frequency which corresponds to half the data rate, and the determined power, current or voltage values are used to control the phase-synchronous supply of the optical pulsed signal and/or of the electrical data signal.